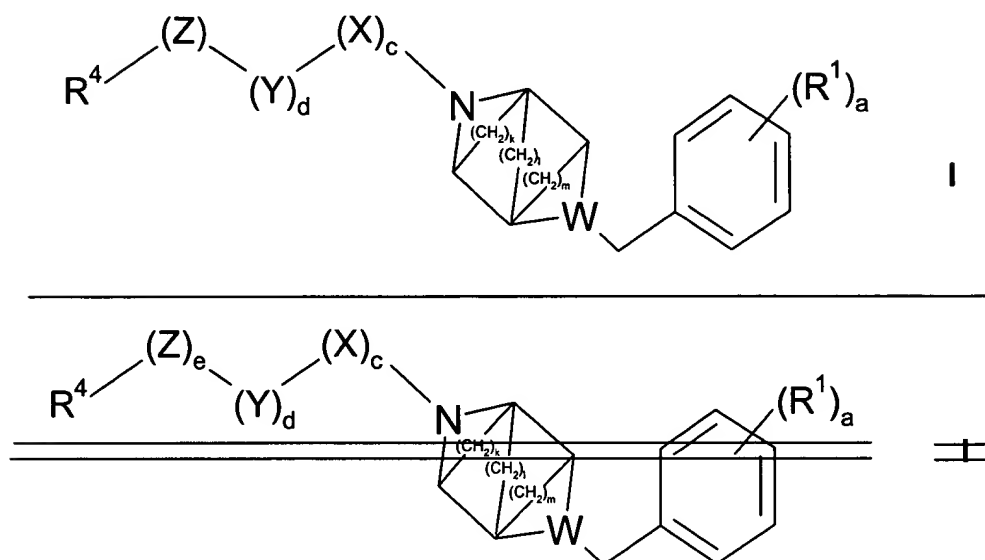


AMENDMENT TO THE CLAIMS

Claim 1 (currently amended): A compound of the formula



or ~~a~~ the pharmaceutically acceptable salt ~~and pro-drugs~~ thereof; wherein

a is 1, 2, 3, 4 or 5;

c is 0 or 1;

d is 1, 2, 3, 4 or 5;

k is ~~0, 1, 2, 3 or 4~~; l is ~~0, 1, 2, 3 or 4~~; m is ~~0, 1, 2, 3, or 4~~; ~~k, l and m cannot all be 0~~
~~and if m and/or k are not 0, then l must be 0;~~

W is ~~CH~~ or N;

X is C(O), C(S) or CH₂;

Y is CH₂;

Z is oxygen, NR⁹ or CR¹¹R¹²;

each R¹ is independently selected from hydrogen, hydroxy, hydroxysulfonyl, halo, (C₁-C₆)alkyl, mercapto, mercapto(C₁-C₆)alkyl, (C₁-C₆)alkylthio, (C₁-C₆)alkylsulfinyl, (C₁-C₆)alkylsufonyl, (C₁-C₆)alkylthio(C₁-C₆)alkyl, (C₁-C₆)alkylsulfinyl(C₁-C₆)alkyl, (C₁-C₆)alkylsulfonyl(C₁-C₆)alkyl, (C₁-C₆)alkoxy, (C₆-C₁₀)aryloxy, halo(C₁-C₆)alkyl, trifluoromethyl, formyl, formyl(C₁-C₆)alkyl, nitro, nitroso, cyano, (C₆-C₁₀)aryl(C₁-

C₆)alkoxy, halo(C₁-C₆)alkoxy, trifluoromethoxy, (C₃-C₇)cycloalkyl, (C₃-C₇)cycloalkyl(C₁-C₆)alkyl, hydroxy(C₃-C₇)cycloalkyl(C₁-C₆)alkyl, (C₃-C₇)cycloalkylamino, (C₃-C₇)cycloalkylamino(C₁-C₆)alkyl, ((C₃-C₇)cycloalkyl)((C₁-C₆)alkyl)amino, ((C₃-C₇)cycloalkyl(C₁-C₆)alkyl)amino(C₁-C₆)alkyl, cyano(C₁-C₆)alkyl, (C₂-C₇)alkenyl, (C₂-C₇)alkynyl, (C₆-C₁₀)aryl, (C₆-C₁₀)aryl(C₁-C₆)alkyl, (C₆-C₁₀)aryl(C₂-C₆)alkenyl, hydroxy(C₁-C₆)alkyl, hydroxy(C₆-C₁₀)aryl(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkylthio(C₁-C₆)alkyl, hydroxy(C₂-C₆)alkenyl, hydroxy(C₂-C₆)alkynyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₆-C₁₀)aryl(C₁-C₆)alkyl, (C₆-C₁₀)aryloxy(C₁-C₆)alkyl, (C₆-C₁₀)aryl(C₁-C₆)alkoxy(C₁-C₆)alkyl, amino, (C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂amino, (C₆-C₁₀)arylamino, (C₆-C₁₀)aryl(C₁-C₆)alkylamino, amino(C₁-C₆)alkyl, (C₁-C₆)alkylamino(C₁-C₆)alkyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkyl, hydroxy(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₆-C₁₀)arylamino(C₁-C₆)alkyl, (C₆-C₁₀)aryl(C₁-C₆)alkylamino(C₁-C₆)alkyl, (C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkylcarbonyl)((C₁-C₆)alkyl)amino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkyl, ((C₁-C₆)alkylcarbonyl)((C₁-C₆)alkyl)amino(C₁-C₆)alkyl, (C₁-C₆)alkoxycarbonylamino, ((C₁-C₆)alkoxycarbonyl)((C₁-C₆)alkyl)amino, ((C₁-C₆)alkoxycarbonyl)(C₁-C₆)alkylamino, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkyl, ((C₁-C₆)alkoxycarbonyl)((C₁-C₆)alkyl)amino(C₁-C₆)alkyl, (C₁-C₆)alkoxycarbonyl((C₁-C₆)alkyl)amino(C₁-C₆)alkyl, carboxy, (C₁-C₆)alkoxycarbonyl, (C₆-C₁₀)aryl(C₁-C₆)alkoxycarbonyl, (C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl, (C₆-C₁₀)arylcarbonyl, (C₆-C₁₀)arylcarbonyl(C₁-C₆)alkyl, (C₆-C₁₀)aryl(C₁-C₆)alkylcarbonyl, (C₆-C₁₀)aryl(C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl, carboxy(C₁-C₆)alkyl, (C₁-C₆)alkoxycarbonyl(C₁-C₆)alkyl, (C₆-C₁₀)aryl(C₁-C₆)alkoxycarbonyl(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkylcarbonyloxy(C₁-C₆)alkyl, aminocarbonyl, (C₁-C₆)alkylaminocarbonyl, ((C₁-C₆)alkyl)₂aminocarbonyl, (C₆-C₁₀)arylamino(C₁-C₆)alkyl, (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkyl, ((C₁-C₆)alkyl)₂aminocarbonyl(C₁-C₆)alkyl, (C₆-C₁₀)arylamino(C₁-C₆)alkyl, (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkyl, amidino, guanidino, ureido, (C₁-C₆)alkylureido, ((C₁-C₆)alkyl)₂ureido, ureido(C₁-C₆)alkyl, (C₁-

C₆)alkylureido(C₁-C₆)alkyl, ((C₁-C₆)alkyl)₂ureido(C₁-C₆)alkyl, (C₂-C₉)heterocycloalkyl, (C₂-C₉)heteroaryl, (C₂-C₉)heterocycloalkyl(C₁-C₆)alkyl and (C₂-C₉)heteroaryl(C₁-C₆)alkyl;

R⁴ is (R⁵Q_q)_f(C₆-C₁₀)aryl, (R⁵Q_q)_f(C₃-C₁₀)cycloalkyl, (R⁵Q_q)_f(C₂-C₉)heteroaryl, (R⁵Q_q)_f(C₂-C₉)heterocycloalkyl,

wherein f is 0, 1, 2, 3, 4 or 5;

Q is (C₁-C₆)alkyl;

q is 0 or 1;

R⁵ is independently selected from: (C₂-C₉)heterocycloalkylcarbonyl, (C₂-C₉)heteroarylcarbonyl, (C₂-C₉)heteroaryl(C₁-C₆)alkylaminocarbonyl, (C₂-C₉)heteroarylaminocarbonyl, (C₂-C₉)heterocycloalkyl(C₁-C₆)alkylaminocarbonyl, (C₁-C₆)alkylsulfonylaminocarbonyl, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylaminocarbonyl, ureido(C₁-C₆)alkylaminocarbonyl, (C₁-C₆)alkylureido(C₁-C₆)alkylaminocarbonyl, ((C₁-C₆)alkyl)₂ureido(C₁-C₆)alkylaminocarbonyl, halo(C₁-C₆)alkylaminocarbonyl, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonyl, hydroxy(C₁-C₆)alkylaminocarbonyl, aminosulfonyl(C₁-C₆)alkylaminocarbonyl, carboxy(C₁-C₆)alkylaminocarbonyl, (C₁-C₆)alkylaminosulfonyl(C₁-C₆)alkylaminocarbonyl, amino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, carboxy(C₁-C₆)alkylcarbonylamino, carboxy(C₁-C₆)alkoxycarbonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonylamino, acetyl amino(C₁-C₆)alkylcarbonylamino, ~~acetyl amino(C₁-C₆)alkylcarbonylamino~~, (acetyl)((C₁-C₆)alkyl)amino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylcarbonylamino, cyanoguanidino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcyanoguanidino(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂cyanoguanidino(C₁-C₆)alkylcarbonylamino, aminocarbonyl(C₁-C₆)alkylcarbonylamino, aminocarbonylamino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylaminocarbonylamino(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂aminocarbonylamino(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heteroaryl(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heterocycloalkyl(C₁-C₆)alkylcarbonylamino, aminosulfonyl(C₁-C₆)alkylcarbonylamino, hydroxy(C₁-C₆)alkylureido, amino(C₁-C₆)alkylureido, (C₁-C₆)alkylamino(C₁-C₆)alkylureido, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylureido, (C₂-C₉)heterocycloalkyl(C₁-C₆)alkylureido, (C₂-

C₉)heteroarylureido, (C₂-C₉)heteroaryl(C₁-C₆)alkylureido, (C₁-C₆)alkylsulfonylureido, aminosulfonyl(C₁-C₆)alkylureido, aminocarbonyl(C₁-C₆)alkylureido, (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkylureido, ((C₁-C₆)alkyl)₂aminocarbonyl(C₁-C₆)alkylureido, acetylamino(C₁-C₆)alkylureido, (acetyl)((C₁-C₆)alkyl)amino(C₁-C₆)alkylureido, carboxy(C₁-C₆)alkylureido, halo(C₁-C₆)alkylsulfonylamino, amino(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylsulfonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylsulfonylamino, acetylamino(C₁-C₆)alkylsulfonylamino, (acetyl)((C₁-C₆)alkyl)amino(C₁-C₆)alkylsulfonylamino, ureido(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylureido(C₁-C₆)alkylsulfonylamino, ((C₁-C₆)alkyl)₂ureido(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylsulfonylamino, cyanoguanidino(C₁-C₆)alkylsulfonylamino, carboxy(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylcyanoguanidino(C₁-C₆)alkylsulfonylamino, ((C₁-C₆)alkyl)₂cyanoguanidino(C₁-C₆)alkylsulfonylamino, aminocarbonyl(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkylsulfonylamino, aminosulfonylaminocarbonyl, (C₁-C₆)alkylaminosulfonylaminocarbonyl, ((C₁-C₆)alkyl)₂aminosulfonylaminocarbonyl, (C₆-C₁₀)arylsulfonyl, (C₁-C₆)alkylaminosulfonylamino, ((C₁-C₆)alkyl)₂aminosulfonylamino, aminocarbonyl(C₁-C₆)alkylamino(C₁-C₆)alkylsulfonylamino, (C₂-C₉)heterocycloalkyloxycarbonylamino(C₁-C₆)alkylsulfonylamino, (C₂-C₉)heteroaryloxycarbonylamino(C₁-C₆)alkylsulfonylamino, cyanoguanidino, (C₁-C₆)alkylcyanoguanidino, ((C₁-C₆)alkyl)₂cyanoguanidino, (C₂-C₉)heterocycloalkylcyanoguanidino, (C₂-C₉)heteroaryl(C₁-C₆)alkylcyanoguanidino, amino(C₁-C₆)alkylcyanoguanidino, (C₁-C₆)alkylamino(C₁-C₆)alkylcyanoguanidino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcyanoguanidino, aminocarbonyl(C₁-C₆)alkylcyanoguanidino, **carboxy(C₁-C₆)alkylcyanoguanidino**, (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkylcyanoguanidino, ((C₁-C₆)alkyl)₂aminocarbonyl(C₁-C₆)alkylcyanoguanidino, hydroxy(C₁-C₆)alkylamino, aminocarbonyl(C₁-C₆)alkylamino, carboxy(C₁-C₆)alkylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylamino, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkylamino, aminosulfonyl(C₁-C₆)alkylamino, (C₂-C₉)heteroaryl(C₁-C₆)alkylamino, acetylamino(C₁-

C₆)alkylamino, (acetyl)((C₁-C₆)alkyl)amino(C₁-C₆)alkylamino, (C₂-C₉)heterocycloalkyl(C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylamino, (C₁-C₆)alkoxy(C₁-C₆)alkylamino, (C₁-C₆)alkoxycarbonyl(C₁-C₆)alkylamino, cyano(C₁-C₆)alkylamino, (C₂-C₉)heterocycloalkyloxycarbonylamino(C₁-C₆)alkylamino, (C₂-C₉)heteroaryloxycarbonylamino(C₁-C₆)alkylamino, cyanoguanidino(C₁-C₆)alkylamino, (C₁-C₆)alkylcyanoguanidino(C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂cyanoguanidino(C₁-C₆)alkylamino, ureido(C₁-C₆)alkylamino, (C₁-C₆)alkylureido(C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂ureido(C₁-C₆)alkylamino, aminocarbonyloxy(C₁-C₆)alkylamino, hydroxy(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂aminocarbonyl(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkylcarbonylamino, aminosulfonyl(C₁-C₆)alkylcarbonylamino, hydroxy(C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, amino(C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkoxy(C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heterocycloalkyloxycarbonylamino, (C₂-C₉)heteroarylcarbonylamino(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heteroarylcarbonylamino, (C₂-C₉)heterocycloalkylcarbonylamino, (C₂-C₉)heteroaryl(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heterocycloalkyl(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heterocycloalkylcarbonylamino(C₁-C₆)alkylcarbonylamino, cyano(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylaminocarbonylamino, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkylaminocarbonylamino, (C₂-C₉)heterocycloalkyloxycarbonylamino(C₁-C₆)alkylaminocarbonylamino, (C₂-C₉)heteroaryloxycarbonylamino(C₁-C₆)alkylaminocarbonylamino, (C₂-C₉)heteroaryloxycarbonylamino(C₁-C₆)alkylaminocarbonylamino, ureido(C₁-C₆)alkylureido, (C₁-C₆)alkylureido(C₁-C₆)alkylureido, ((C₁-C₆)alkyl)₂ureido(C₁-C₆)alkylureido, cyanoguanidino(C₁-C₆)alkylureido, (C₂-C₉)heteroaryl(cyanoguanidino), aminosulfonyl, amino(C₁-C₆)alkylsulfonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylsulfonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylsulfonyl, (C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkyl)₂aminosulfonyl, (C₂-

C₉)heterocycloalkylsulfonyl, amino(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylaminosulfonyl, (C₂-C₉)heteroarylaminosulfonyl, hydroxy(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkoxy(C₁-C₆)alkylaminosulfonyl, ureido(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkylureido(C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkyl)₂ureido(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkylaminosulfonyl, (C₂-C₉)heterocycloalkyloxycarbonylamino(C₁-C₆)alkylaminosulfonyl, (C₂-C₉)heteroaryloxycarbonylamino(C₁-C₆)alkylaminosulfonyl, aminocarbonyl(C₁-C₆)alkylaminosulfonyl, cyanoguanidino(C₁-C₆)alkylaminosulfonyl, (C₂-C₉)heteroarylaminosulfonyl, (C₂-C₉)heteroaryl(C₁-C₆)alkylaminosulfonyl, (C₂-C₉)heterocycloalkylaminosulfonyl, (C₁-C₆)alkylcarbonylaminosulfonyl, halo(C₁-C₆)alkylcarbonylaminosulfonyl, (C₁-C₆)alkoxycarbonylaminosulfonyl, ureidosulfonyl, (C₁-C₆)alkylureidosulfonyl, ((C₁-C₆)alkyl)₂ureidosulfonyl, hydrogen, hydroxy, hydroxysulfonyl, halo, mercapto, (C₁-C₆)alkylthio, (C₁-C₆)alkylsulfinyl, (C₁-C₆)alkylsulfonyl, carboxy(C₁-C₆)alkylsulfonyl, (C₆-C₁₀)arylsulfonyl, **(C₂-C₉)heteroarylsulfonyl**, ~~(C₂-C₉)heteroarylsulfonyl~~, (C₁-C₆)alkoxy, hydroxy(C₁-C₆)alkoxy, (C₆-C₁₀)aryloxy, trifluoro(C₁-C₆)alkyl, formyl, nitro, nitroso, cyano halo(C₁-C₆)alkoxy, trifluoro(C₁-C₆)alkoxy, amino(C₁-C₆)alkoxy, (C₃-C₁₀)cycloalkylhydroxy(C₃-C₁₀)cycloalkyl (C₃-C₁₀)cycloalkylamino(C₂-C₆)alkenyl, (C₂-C₆)alkynyl, (C₆-C₁₀)aryl, (C₆-C₁₀)aryl(C₂-C₆)alkenyl, hydroxy(C₆-C₁₀)aryl, ((C₁-C₆)alkylamino)(C₆-C₁₀)aryl, hydroxy(C₁-C₆)alkylthio, hydroxy(C₂-C₆)alkenyl, hydroxy(C₂-C₆)alkynyl, (C₁-C₆)alkoxy(C₆-C₁₀)aryl, (C₆-C₁₀)aryl(C₁-C₆)alkoxy, amino, (C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂amino, (C₆-C₁₀)arylamino, (C₆-C₁₀)aryl(C₁-C₆)alkylamino, amino(C₁-C₆)alkylamino, (C₂-C₉)heterocycloalkylamino, (C₂-C₉)heteroarylamino, **(C₂-C₉)heteroaryl(C₁-C₆)alkylamino**, ~~(C₂-C₉)heterocycloalkyl(C₁-C₆)alkylamino~~, **(C₃-C₁₀)cycloalkyl((C₁-C₆)alkyl)amino**, ~~(C₃-C₁₀)cycloalkyl(C₁-C₆)alkylamino~~, (C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkoxycarbonylamino, (C₂-C₆)alkenylcarbonylamino, (C₃-C₁₀)cycloalkylcarbonylamino, (C₆-C₁₀)arylcabonylamino, (C₂-C₉)heterocycloalkylcarbonylamino, (C₂-C₉)heteroaryloxycarbonylamino, (C₂-C₉)heterocycloalkoxycarbonylamino, halo(C₁-

C₆)alkylcarbonylamino, (C₁-C₆)alkoxy(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkoxycarbonyl(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkylcarbonyl)((C₁-C₆)alkyl)amino, ((C₁-C₆)alkoxycarbonyl)((C₁-C₆)alkyl)amino, (C₁-C₆)alkylsulfonylamino, ((C₁-C₆)alkylcarbonyl)((C₁-C₆)alkyl)amino, (C₃-C₁₀)cycloalkyl((C₁-C₆)alkyl)amino, ~~(C₃-C₁₀)cycloalkyl((C₁-C₆)alkyl)amino~~, ((C₁-C₆)alkylsulfonyl)((C₁-C₆)alkyl)amino, (C₂-C₉)heteroarylsulfonylamino, (C₆-C₁₀)arylsulfonylamino, ((C₆-C₁₀)arylsulfonyl)((C₁-C₆)alkyl)amino, carboxy, (C₁-C₆)alkoxycarbonyl, (C₆-C₁₀)aryl(C₁-C₆)alkoxycarbonyl, (C₁-C₆)alkylcarbonyl, carboxy(C₁-C₆)alkylcarbonyl, amino(C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylcarbonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonyl, (C₆-C₁₀)arylcarbonyl, (C₂-C₉)heteroaryl(C₁-C₆)alkylcarbonyl, (C₆-C₁₀)aryl(C₁-C₆)alkylcarbonyl, hydroxy(C₁-C₆)alkoxycarbonyl, (C₁-C₆)alkoxy(C₁-C₆)alkylcarbonyloxy, ((C₁-C₆)alkyl)₂aminocarbonyloxyaminocarbonyl, hydroxyaminocarbonyl, (C₁-C₆)alkylaminocarbonyl, ((C₁-C₆)alkyl)₂aminocarbonyl, (C₆-C₁₀)arylaminocarbonyl, (C₆-C₁₀)aryl(C₁-C₆)alkylaminocarbonyl, aminocarbonyl(C₁-C₆)alkylaminocarbonyl, (aminocarbonyl(C₁-C₆)alkylaminocarbonyl, (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkylaminocarbonyl, ((C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkylaminocarbonyl, (carboxy(C₁-C₆)alkyl)aminocarbonyl, (C₁-C₆)alkoxycarbonyl(C₁-C₆)alkylaminocarbonyl, ((C₁-C₆)alkoxycarbonyl(C₁-C₆)alkylaminocarbonyl, (amino(C₁-C₆)alkyl)aminocarbonyl, hydroxy(C₁-C₆)alkylaminocarbonylamidino, ~~hydroxy(C₁-C₆)alkylaminocarbonylamidino~~, hydroxyamidino, guanidino, ureido, (C₁-C₆)alkylureido, (C₆-C₁₀)arylureido, ((C₆-C₁₀)aryl)₂ureido, (C₆-C₁₀)aryl(C₁-C₆)alkylureido, halo(C₁-C₆)alkylureido, ((C₁-C₆)alkyl)((C₆-C₁₀)aryl)ureido, ((C₁-C₆)alkyl)₂ureido, halo(C₁-C₆)alkylcarbonylureido, (halo(C₁-C₆)alkyl)((C₁-C₆)alkyl)ureido, ((C₁-C₆)alkoxycarbonyl(C₁-C₆)alkyl)ureido, glycnamido, (C₁-C₆)alkylglycinamido, aminocarbonylglycinamido, (C₁-C₆)alkoxy(C₁-C₆)alkylcarbonylglycinamido, (aminocarbonyl)((C₁-C₆)alkyl)glycinamido, ((C₁-C₆)alkoxycarbonyl(C₁-C₆)alkylcarbonyl)((C₁-C₆)alkyl)glycinamido, ((C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkylcarbonyl)glycinamido, (C₆-C₁₀)arylcarbonylglycinamido, ((C₆-C₁₀)arylcarbonyl)((C₁-C₆)alkyl)glycinamido, ((C₆-C₁₀)aryl(C₁-

~~C₆alkylaminocarbonyl)glycinamido, ((C₆-C₁₀)aryl(C₁-C₆)alkylaminocarbonyl)((C₁-C₆)alkyl)glycinamido, ((C₆-C₁₀)aryl(C₁-C₆)alkylaminocarbonyl)((C₁-C₆)alkyl)glycinamido, (C₆-C₁₀)arylamino~~~~carbonyl)glycinamido, ((C₆-C₁₀)aryl(C₁-C₆)alkylaminocarbonyl)((C₁-C₆)alkyl)glycinamido, (C₆-C₁₀)arylamino~~
~~carbonyl)glycinamido, ((C₆-C₁₀)aryl(C₁-C₆)alkylaminocarbonyl)((C₁-C₆)alkyl)glycinamido, (C₆-C₁₀)arylamino~~
carbonyl)glycinamido, alaninamido, (C₁-C₆)alkylalaninamido, (C₂-C₉)heteroaryl, amino(C₂-C₉)heteroaryl, (C₁-C₆)alkylamino(C₂-C₉)heteroaryl, ((C₁-C₆)alkyl)₂amino(C₂-C₉)heteroaryl, (C₂-C₉)heteroaryloxy, (C₂-C₉)heterocycloalkyl, carboxy(C₁-C₆)alkoxy, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkoxy, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkoxy, (C₂-C₉)heteroaryl(C₁-C₆)alkoxy, carboxy(C₁-C₆)alkylamino(C₂-C₆)alkoxy, amino(C₂-C₆)alkoxy, (aminocarbonyl)(hydroxy)amino, (C₁-C₆)alkylamino(C₂-C₆)alkoxy, ((C₁-C₆)alkyl)₂amino(C₂-C₆)alkoxy, (C₁-C₆)alkylcarbonylamino(C₂-C₆)alkoxy, aminocarbonylamino(C₂-C₆)alkoxy, (C₁-C₆)alkylaminocarbonylamino(C₂-C₆)alkoxy, ((C₁-C₆)alkyl)₂aminocarbonylamino(C₂-C₆)alkoxy, amino(C₂-C₆)alkoxycarbonylamino, (C₁-C₆)alkylamino(C₂-C₆)alkoxycarbonylamino, ((C₁-C₆)alkyl)₂amino(C₂-C₆)alkoxycarbonylamino, ~~(C₂-C₉)heteroaryl~~
~~amino(C₂-C₆)alkoxy, (C₂-C₉)heteroarylamino(C₂-C₆)alkoxy, barbituryl, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonyl, carboxy(C₁-C₆)alkylaminocarbonylamino, (C₂-C₉)heteroarylaminocarbonylamino, ((C₁-C₆)alkylamino)(C₆-C₁₀)aryl(C₁-C₆)alkyl, amino(C₁-C₆)alkoxycarbonylamino, (C₁-C₆)alkyl, halo(C₁-C₆)alkyl, aminocarbonyl, ureido(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonylamino, amino(C₁-C₆)alkylcarbonylamino~~ where the (C₁-C₆)alkyl is optionally substituted with one or two groups selected from hydrogen, amino, hydroxyl, (C₁-C₆)alkoxy, carboxy, further substituted (C₂-C₉)heteroaryl, (C₆-C₁₀)aryl, (C₂-C₉)heterocycloalkyl, and cycloalkyl, or the two groups together make up a carbocycle; and R¹⁹carbonylamino where R¹⁹ is a nitrogen containing (C₂-C₉)heterocycloalkyl which is optionally substituted further with one or two groups selected from (C₁-C₆)alkyl, (C₂-C₆)alkoxy and hydroxy;

R⁹ is selected from the group consisting of hydrogen, (C₁-C₆)alkyl, (C₆-C₁₀)aryl, (C₆-C₁₀)aryl(C₁-C₆)alkyl, (C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl, (C₆-

C₁₀)aryl(C₁-C₆)alkylcarbonyl, (C₆-C₁₀)aryl(C₁-C₆)alkylcarbonyl(C₁-C₆)alkyl, aminocarbonyl, (C₁-C₆)alkylaminocarbonyl, ((C₁-C₆)alkyl)₂aminocarbonyl and (C₁-C₆)alkoxycarbonyl; and

R¹¹ and R¹² are each independently selected from the group consisting of hydrogen, (C₁-C₆)alkyl, (C₆-C₁₀)aryl, (C₆-C₁₀)aryl(C₁-C₆)alkyl, hydroxy, (C₁-C₆)alkoxy, hydroxy(C₁-C₆)alkyl, (C₁-C₆)alkoxy(C₁-C₆)alkyl, amino, (C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂amino, (C₁-C₆)alkylcarbonylamino, (C₃-C₈)cycloalkylcarbonylamino, (C₃-C₈)cycloalkyl(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkoxycarbonylamino, (C₁-C₆)alkylsulfonylamino, (C₆-C₁₀)arylcarbonylamino, (C₁-C₆)alkoxycarbonyl(C₁-C₆)alkylcarbonylamino, (C₆-C₁₀)aryl(C₁-C₆)alkylcarbonylamino, ((C₆-C₁₀)aryl(C₁-C₆)alkylcarbonyl)((C₁-C₆)alkyl)amino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkyl, (C₃-C₈)cycloalkylcarbonylamino(C₁-C₆)alkyl, (C₁-C₆)alkoxycarbonylamino(C₁-C₆)alkyl, (C₂-C₉)heterocycloalkylcarbonylamino(C₁-C₆)alkyl, (C₆-C₁₀)aryl(C₁-C₆)alkylcarbonylamino(C₁-C₆)alkyl, (C₂-C₉)heteroarylcarbonylamino(C₁-C₆)alkyl, (C₆-C₁₀)arylsulfonylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkyl, aminocarbonylamino, (C₁-C₆)alkylaminocarbonylamino, halo(C₁-C₆)alkylaminocarbonylamino, ((C₁-C₆)alkyl)₂aminocarbonylamino, aminocarbonylamino(C₁-C₆)alkyl, (C₁-C₆)alkylaminocarbonylamino(C₁-C₆)alkyl, ((C₁-C₆)alkyl)₂aminocarbonylamino(C₁-C₆)alkyl, halo(C₁-C₆)alkylaminocarbonylamino(C₁-C₆)alkyl, amino(C₁-C₆)alkyl, (C₁-C₆)alkylamino(C₁-C₆)alkyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkyl, carboxy(C₁-C₆)alkyl, (C₁-C₆)alkoxycarbonyl(C₁-C₆)alkyl, aminocarbonyl(C₁-C₆)alkyl and (C₁-C₆)alkylaminocarbonyl(C₁-C₆)alkyl.

Claim 2 (currently amended): A compound according to claim 1, wherein R¹ is hydrogen, halo, cyano, nitro, trifluoromethyl, trifluoromethoxy, (C₁-C₆)alkyl, hydroxy or (C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylcarbonyloxy.

Claim 3 (currently amended): A compound according to claim 1, wherein c is 1; X is C(O) or CH₂; d is 1; and Z is oxygen, NH, ~~(C₁-C₆)alkyl~~, or CR¹¹R¹².

Claim 4 (original). A compound according to claim 1, wherein R⁴ is (R⁵)_f(C₆-C₁₀)aryl or (R⁵)_f(C₂-C₉) heteroaryl, wherein f is 1 or 2.

Claim 5 (currently amended): A compound according to claim 1, wherein c is 1; X is C(O); d is 1; Z is oxygen or CR¹¹R¹² ~~(C₁-C₆)alkyl~~; W is nitrogen or CH; and l, m and k are zero, zero and 2 or 3 respectively, or k, l, and m are zero, zero and 2 or 3 respectively.

Claim 6 (currently amended): A compound according to claim 1, wherein R⁴ is phenyl, Q is (C₁-C₆)alkyl, q is 0 or 1, and at least one R⁵ is selected from: (C₂-C₉)heteroarylaminocarbonyl, (C₂-C₉)heteroarylcarbonylamino, (C₁-C₆)alkylsulfonylaminocarbonyl, aminosulfonylaminocarbonyl, carboxy(C₁-C₆)alkylcyanoguanidino, carboxy, (C₂-C₉)heteroaryl amino, (C₂-C₉)heteroarylsulfonyl, **(C₂-C₉)heteroaryl, (C₂-C₉)heteroaryloxy**, (C₂-C₉)heteroarylcarbonyl, (C₂-C₉)heteroaryl(C₁-C₆)alkylcarbonyl, carboxy(C₁-C₆)alkylaminocarbonylamino, (C₂-C₉)heteroarylaminocarbonylamino, carboxy(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heteroaryl(C₁-C₆)alkylamino, carboxy(C₁-C₆)alkylaminocarbonyl, carboxy(C₁-C₆)alkylsulfonylamino, (C₂-C₉)heteroarylaminosulfonyl, carboxy(C₁-C₆)alkylsulfonyl, carboxy(C₁-C₆)alkylamino, carboxy(C₁-C₆)alkylcarbonyl, carboxy(C₁-C₆)alkoxy, carboxy(C₁-C₆)alkoxycarbonylamino, hydroxyaminocarbonyl, (C₁-C₆)alkylsulfonylaminocarbonyl(C₁-C₆)alkoxy, (C₂-C₉)heteroaryl(C₁-C₆)alkoxy, carboxy(C₁-C₆)alkylamino(C₂-C₆)alkoxy, (C₂-C₉)heteroaryl amino(C₂-C₆)alkoxy, amino(C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylcarbonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonyl, amino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonylamino, amino(C₁-C₆)alkylureido, (C₁-C₆)alkylamino(C₁-C₆)alkylureido, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylureido, amino(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylsulfonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylsulfonylamino, amino(C₁-C₆)alkylsulfonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylsulfonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylsulfonyl, amino(C₁-C₆)alkylcyanoguanidino, (C₁-C₆)alkylamino(C₁-

C₆)alkylcyanoguanidino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcyanoguanidino, amino(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkylamino)(C₆-C₁₀)aryl(C₁-C₆)alkyl, amino, amino(C₁-C₆)alkoxy, amino(C₁-C₆)alkoxycarbonylamino, (C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂amino, (C₆-C₁₀)arylamino, (C₆-C₁₀)aryl(C₁-C₆)alkylamino, amino(C₁-C₆)alkylamino, (C₂-C₉)heterocycloalkylamino, (C₂-C₉)heteroarylamino, (C₃-C₁₀)cycloalkyl(C₁-C₆)alkylamino, (amino(C₁-C₆)alkyl)aminocarbonyl, glycnamido, (C₁-C₆)alkylglycinamido, alaninamido, (C₁-C₆)alkylalaninamido, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonylamino, halo, (C₁-C₆)alkoxy, (C₁-C₆)alkyl, halo(C₁-C₆)alkyl, aminocarbonyl(C₁-C₆)alkylureido, (C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylaminocarbonyl, aminosulfonyl, aminocarbonyl, ureido(C₁-C₆)alkylaminocarbonyl, aminocarbonyl(C₁-C₆)alkylaminocarbonyl, aminocarbonyl(C₁-C₆)alkylaminocarbonyl, aminocarbonyl(C₁-C₆)alkylcarbonylamino, ureido(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonylamino, ~~ureido(C₁-C₆)alkylcarbonylamino~~, ureido, halo(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonyl.

Claim 7 (currently amended): A compound according to claim 1, wherein R⁴ is pyridyl, Q is (C₁-C₆)alkyl, q is 0 or 1, and at least one R⁵ is selected from: (C₂-C₉)heteroarylamino, (C₂-C₉)heteroarylcarbonylamino, (C₁-C₆)alkylsulfonylamino, aminosulfonylamino, carboxy(C₁-C₆)alkylcyanoguanidino, carboxy, (C₂-C₉)heteroarylamino, (C₂-C₉)heteroarylsulfonyl, **(C₂-C₉)heteroaryl, (C₂-C₉)heteroaryloxy**, (C₂-C₉)heteroarylcarbonyl, (C₂-C₉)heteroaryl(C₁-C₆)alkylcarbonyl, carboxy(C₁-C₆)alkylaminocarbonylamino, (C₂-C₉)heteroarylamino, carboxy(C₁-C₆)alkylcarbonylamino, (C₂-C₉)heteroaryl(C₁-C₆)alkylamino, carboxy(C₁-C₆)alkylaminocarbonyl, carboxy(C₁-C₆)alkylsulfonylamino, (C₂-C₉)heteroarylamino, carboxy(C₁-C₆)alkylsulfonyl, carboxy(C₁-C₆)alkylamino, carboxy(C₁-C₆)alkylcarbonyl, carboxy(C₁-C₆)alkoxy,

carboxy(C₁-C₆)alkoxycarbonylamino, hydroxyaminocarbonyl, (C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkoxy, (C₂-C₉)heteroaryl(C₁-C₆)alkoxy, carboxy(C₁-C₆)alkylamino(C₂-C₆)alkoxy, (C₂-C₉)heteroaryl(C₂-C₆)alkoxy, amino(C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylcarbonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonyl, amino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylcarbonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonylamino, amino(C₁-C₆)alkylureido, (C₁-C₆)alkylamino(C₁-C₆)alkylureido, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylureido, amino(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylamino(C₁-C₆)alkylsulfonylamino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylsulfonylamino, amino(C₁-C₆)alkylsulfonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylsulfonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylsulfonyl, amino(C₁-C₆)alkylcyanoguanidino, (C₁-C₆)alkylamino(C₁-C₆)alkylcyanoguanidino, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcyanoguanidino, amino(C₁-C₆)alkylaminosulfonyl, (C₁-C₆)alkylamino(C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylaminosulfonyl, ((C₁-C₆)alkylamino)(C₆-C₁₀)aryl(C₁-C₆)alkyl, amino, amino(C₁-C₆)alkoxy, amino(C₁-C₆)alkoxycarbonylamino, (C₁-C₆)alkylamino, ((C₁-C₆)alkyl)₂amino, (C₆-C₁₀)arylamino, (C₆-C₁₀)aryl(C₁-C₆)alkylamino, amino(C₁-C₆)alkylamino, (C₂-C₉)heterocycloalkylamino, (C₂-C₉)heteroarylamino, (C₃-C₁₀)cycloalkyl(C₁-C₆)alkylamino, (amino(C₁-C₆)alkyl)aminocarbonyl, glycinamido, (C₁-C₆)alkylglycinamido, alaninamido, (C₁-C₆)alkylalaninamido, ((C₁-C₆)alkyl)₂amino(C₁-C₆)alkylcarbonylamino, aminocarbonyl(C₁-C₆)alkylureido, (C₁-C₆)alkylcarbonyl, (C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylsulfonylamino(C₁-C₆)alkylaminocarbonyl, aminosulfonyl, aminocarbonyl, ureido(C₁-C₆)alkylaminocarbonyl, **aminocarbonyl(C₁-C₆)alkylaminocarbonyl**, **aminocarbonyl(C₁-C₆)alkylaminocarbonyl**, aminocarbonyl(C₁-C₆)alkylcarbonylamino, ureido(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylcarbonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonylamino, ~~ureido(C₁-C₆)alkylcarbonylamino~~, ureido, halo(C₁-C₆)alkylsulfonylamino, (C₁-C₆)alkylcarbonylamino(C₁-C₆)alkylaminocarbonyl.

Claim 8 (currently amended): Salts of a compound according to claim 1, where pharmaceutically acceptable counter-ions for acidic compounds are selected from alkali metal cations, alkaline earth metal cations ammonium or water-soluble amine addition salts, N-methylglucamine-(meglumine), the lower alkanolammonium and other base salts of pharmaceutically acceptable organic amines; and pharmaceutically acceptable salts selected from hydrochloride, hydrobromide, hydroiodide, nitrate, sulfate, bisulfate, phosphate, acid phosphate, acetate, lactate, citrate, acid citrate, tartrate, bitartrate, succinate, maleate, fumarate, gluconate, saccharate, benzoate, methanesulfonate, ethanesulfonate, benzenesulfonate, p-toluenesulfonate and pamoate salts ~~pamoatesalts~~.

Claims 9-14 (cancelled).